DEPARTMENT of ENVIRONMENTAL SERVICES Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: MOUNTA	INVIEW LAKE	Lake Area (ha):	42.41
Town:	SUNAPEE	Maximum depth (m):	6.7
County:	Sullivan	Mean depth (m):	4.1
River Basin:	Connecticut	Volume (m³):	1758000
Latitude:	43°20'46" N	Relative depth:	0.9
Longitude:	72°04'46" W	Shore configuration:	1.60
Elevation (ft	t): 1116	Areal water load (m/yr)	: 4.18
Shore length	(m): 3700	Flushing rate (yr ⁻¹):	1.00
Watershed are	ea (ha): 336.7	P retention coeff.:	0.69
% watershed p	ponded: 1.0	Lake type: natura	al w/dam

BIOLOGICAL:	10 March 1993	6 July 1992
DOM. PHYTOPLANKTON (% TOTAL) #1	ASTERIONELLA 80%	DINOBRYON 60%
#2	DINOBRYON 15%	ASTERIONELLA 25%
#3		MELOSIRA 5%
PHYTOPLANKTON ABUNDANCE (cells/mL)		940
CHLOROPHYLL-A (µg/L)		3.11
DOM. ZOOPLANKTON (% TOTAL) #1	KELLICOTTIA 33%	NAUPLIUS LARVA 25%
#2	NAUPLIUS LARVA 25%	ROTIFER SPP. 18%
#3	KERATELLA 19%	KERATELLA 16%
ROTIFERS/LITER	68	106
MICROCRUSTACEA/LITER	54	63
ZOOPLANKTON ABUNDANCE (#/L)	126	182
VASCULAR PLANT ABUNDANCE		Scattered
SECCHI DISK TRANSPARENCY (m)		3.5
BOTTOM DISSOLVED OXYGEN (mg/L)	7.1	0.5
BACTERIA (E. coli, #/100 ml) #1		20
#2		< 10
#3		

SUMMER THERMAL STRATIFICATION:

stratified

Depth of thermocline (m): 4.7 Hypolimnion volume (m³): None Anoxic volume (m³): 75500

CHEMICAL:	Lake: MOUNTAINVIEW LAKE Town: SUNAPEE				
	10 March	1993	6 3	July 1992	
DEPTH (m)	1.5	3.5	1.5	3.5	5.5
pH (units)	6.7	6.4	6.7	6.4	6.3
A.N.C. (Alkalinity)	6.2	7.3	6.2	5.1	7.5
NITRATE NITROGEN	0.02	0.04	< 0.02	< 0.02	< 0.02
TOTAL KJELDAHL NITROGEN					
TOTAL PHOSPHORUS	0.010	0.013	0.008	0.007	0.018
CONDUCTIVITY (µmhos/cm)	119.2	118.4	104.2	104.1	105.4
APPARENT COLOR (cpu)	47	50	16	19	32
MAGNESIUM			0.75		
CALCIUM			3.6		
SODIUM	,		13.5		
POTASSIUM			0.83		
CHLORIDE	26	27	23	23	22
SULFATE	6	6	5	5	5
TN : TP					
CALCITE SATURATION INDEX			3.3		

All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 1992

D.O.	S.D.	PLANT	CHL	TOTAL	CLASS
**	2	1	0	3	Oligo.

COMMENTS:

- 1. Also known as Spectacle Pond.
- 2. No boat launch site.
- 3. There was a high density of cottages around most of the shoreline.
- 4. The pond has a concrete dam.
- 5. This pond was previously surveyed and classified in 1978. There was no change in the trophic classification between the two years.
- 6. The dominant genera of wholewater phytoplankton were Aphanocapsa (20%) and Melosira (15%). Diatoms (35%) and blue-greens (30%) were the dominant classes.

FIELD DATA SHEET

LAKE: MOUNTAINVIEW LAKE

DATE: 07/06/92

TOWN: SUNAPEE

WEATHER: SUNNY, BREEZY, WARM

DEPTH (M)	TEMP (°C)	*DISSOLVED OXYGEN	OXYGEN SATURATION
0.1	20.2	8.5	93 %
1.0	20.0	8.5	93 %
2.0	20.0	8.5	93 %
3.0	19.4	8.5	91 %
4.0	18.5	7.8	81 %
5.0	15.0	2.1	21 %
5.5	14.0	0.5	5 %
Annual Market			

SECCHI DISK (m): 3.5

COMMENTS:

BOTTOM DEPTH (m): 6.0

TIME: 1300

*Dissolved oxygen values are in mg/L

111-192

AQUATIC PLANT SURVEY

LAKE: MOUNTAINVIEW LAKE	TOWN: SUNAPEE	DATE: 07/06/92
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	PLANT	NAME	ABUNDANCE	
Key	GENERIC	COMMON		
N	Nymphaea	White water lily	Scattered	
P	Pontederia cordata	Pickerelweed	Scattered	
Y	Nuphar	Yellow water lily	Sparse	
F	Nymphoides cordatum	Floating heart	Sparse	
W	Potamogeton	Pondweed	Sparse	
S	Sparganium	Bur reed	Sparse	
d	Dulichium arundinaceum	Three-way sedge	Sparse	
Х		Bottom growth	Sparse	
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OVERALL ABUNDANCE: Scattered

GENERAL OBSERVATIONS:

- 1. Plants were scattered -- not a problem for recreation.
- 2. Some areas of the shoreline were rocky.